FIG. 1

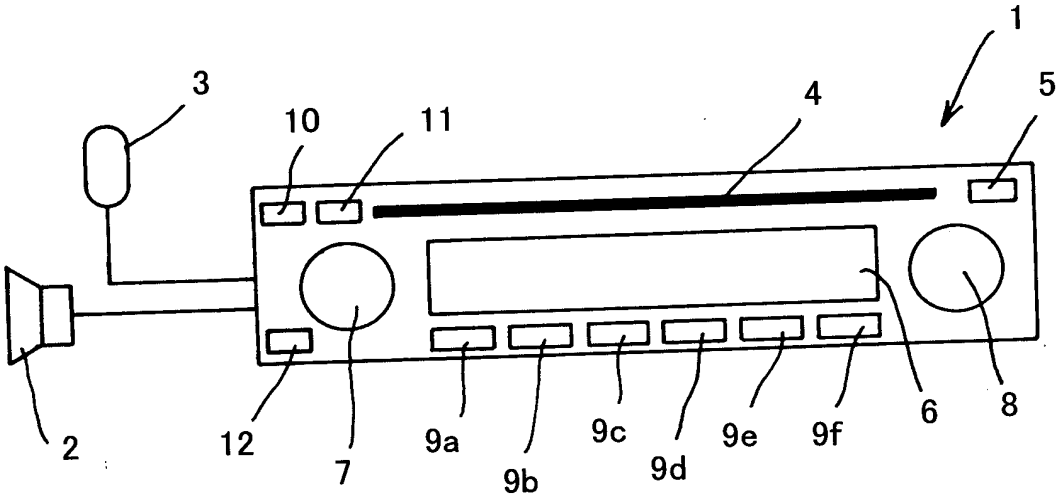


FIG. 2

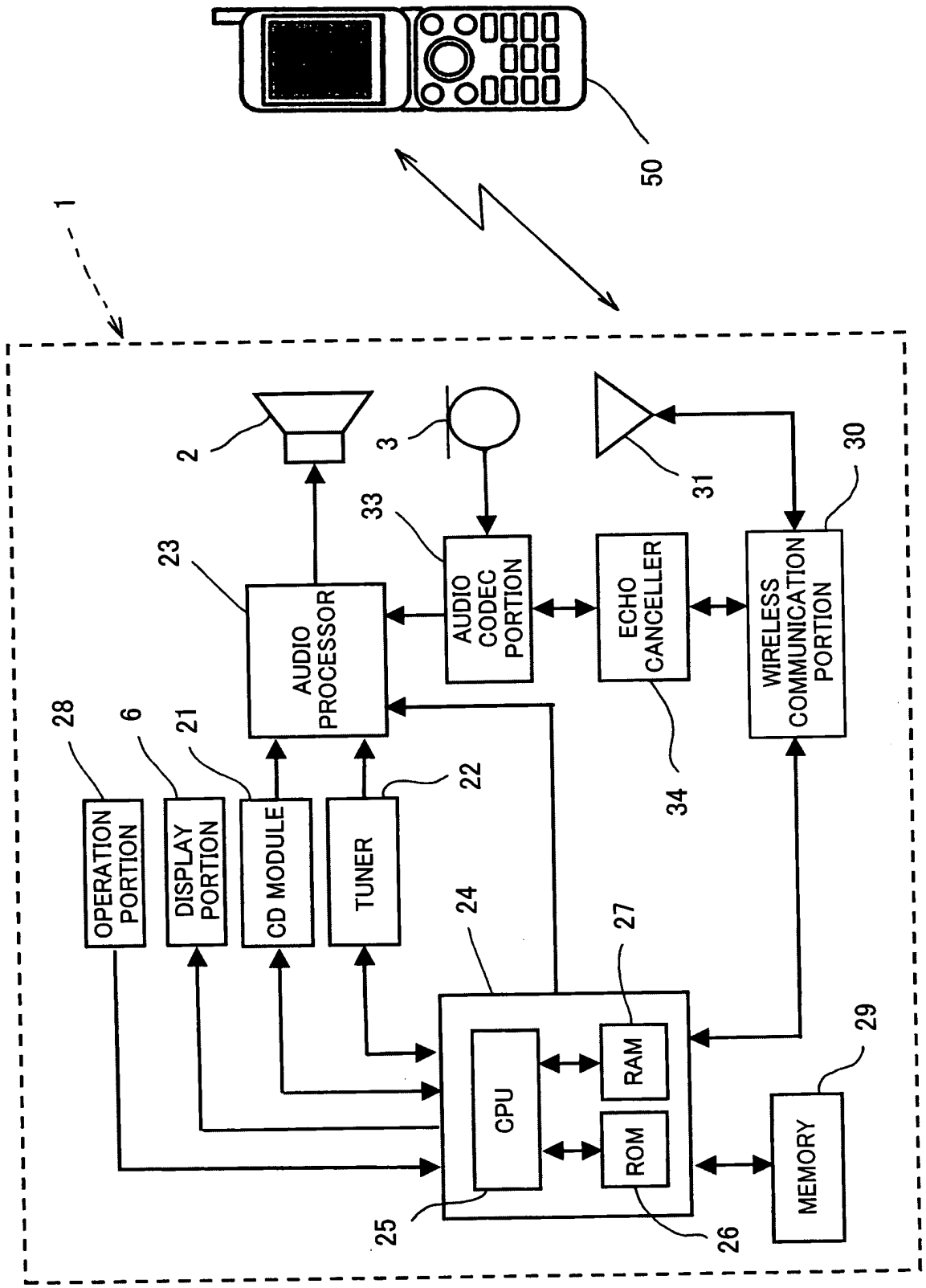

50
1
2
3
31
30
33
23
AUDIO CODEC PORTION
ECHO CANCELLER
WIRELESS COMMUNICATION PORTION
AUDIO PROCESSOR
28
6
21
22
34
OPERATION PORTION
DISPLAY PORTION
CD MODULE
TUNER
24
27
CPU
RAM
ROM
29
MEMORY
25
26

FIG. 3

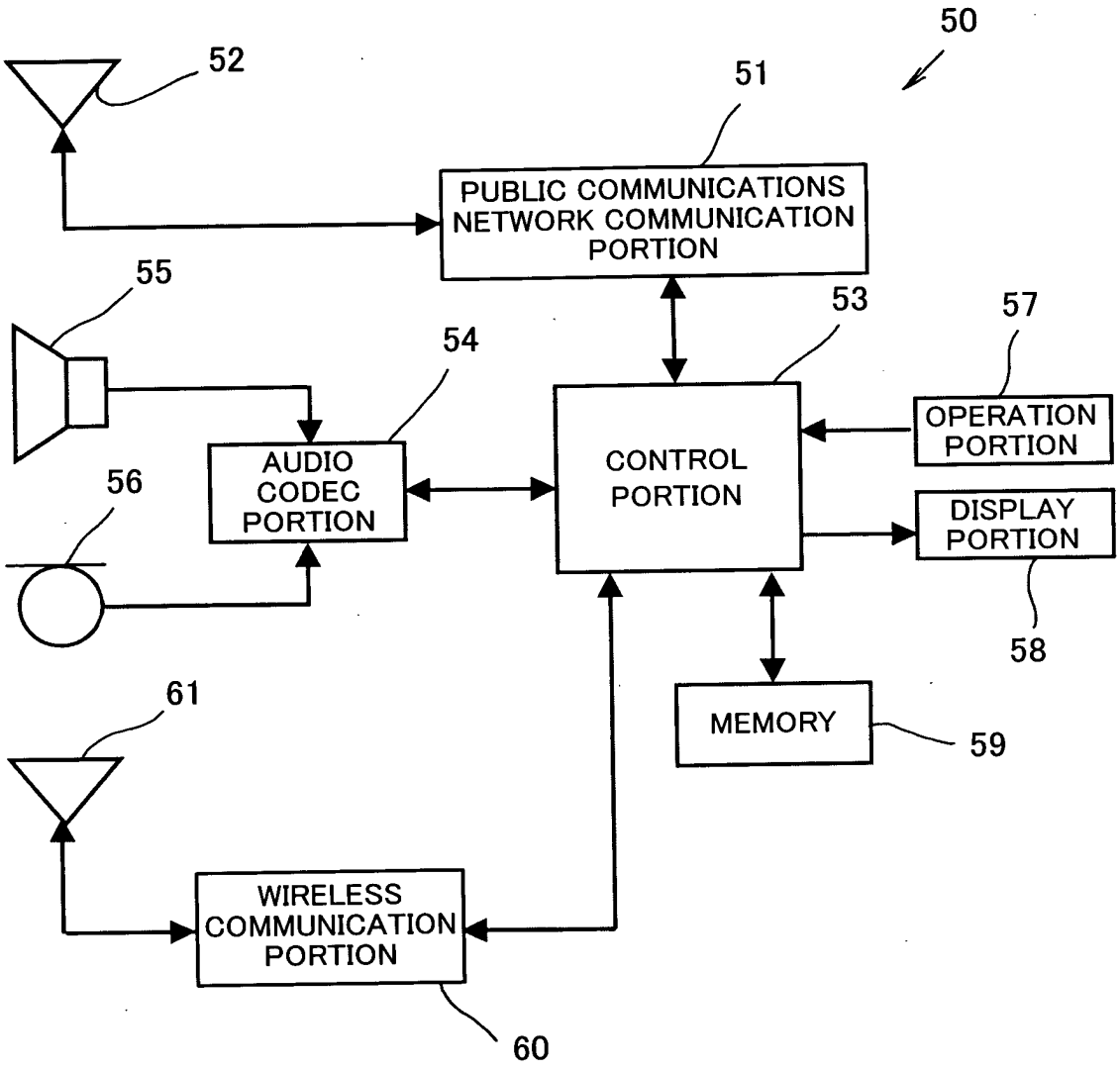

50
52
51
PUBLIC COMMUNICATIONS NETWORK COMMUNICATION PORTION
55
53
57
54
AUDIO CODEC PORTION
CONTROL PORTION
OPERATION PORTION
56
DISPLAY PORTION
58
61
MEMORY
59
WIRELESS COMMUNICATION PORTION
60

FIG. 4

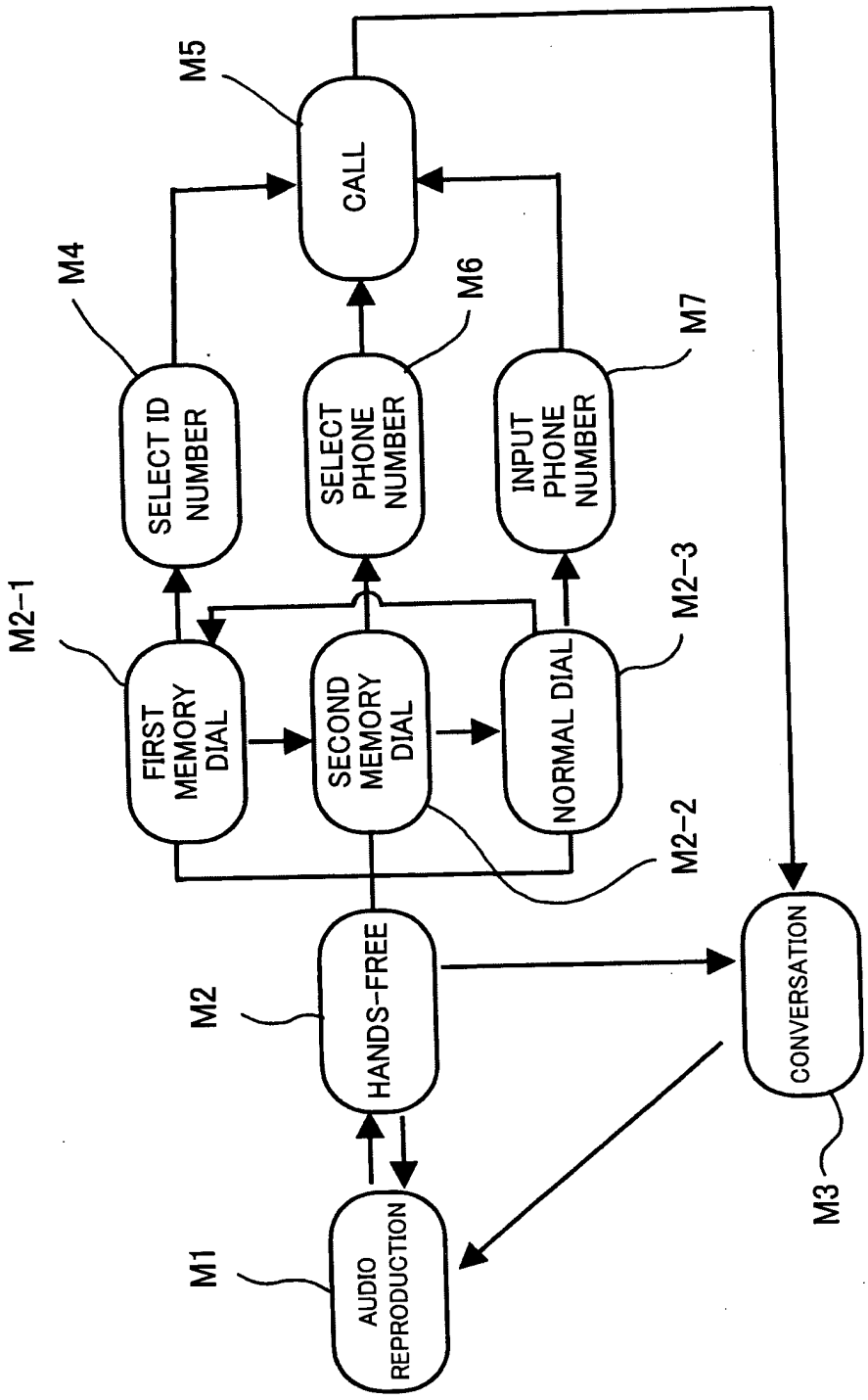

M1
AUDIO REPRODUCTION
M2
HANDS-FREE
M3
CONVERSATION
M2-1
FIRST MEMORY DIAL
SECOND MEMORY DIAL
NORMAL DIAL
M2-2
M2-3
M4
SELECT ID NUMBER
M5
CALL
M6
SELECT PHONE NUMBER
M7
INPUT PHONE NUMBER

FIG. 5

ID NUMBER	PHONE NUMBER
1	09011112222
2	09022223333
3	09033334444
4	09044445555
5	09055556666
6	09066667777
7	09077778888
8	09088889999

FIG. 6

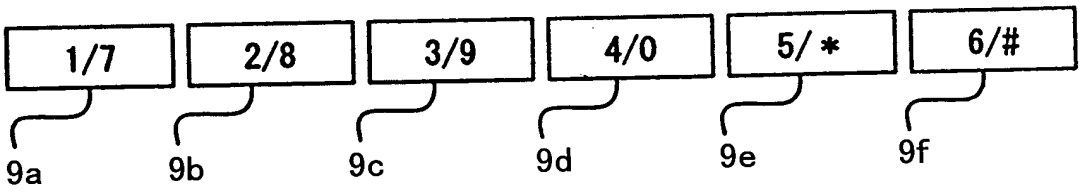


FIG. 7

PRESET KEY	NUMERAL INPUT BY SINGLE CLICK	NUMERAL/SYMBOL INPUT BY DOUBLE CLICK
FIRST PRESET KEY	1	7
SECOND PRESET KEY	2	8
THIRD PRESET KEY	3	9
FOURTH PRESET KEY	4	0
FIFTH PRESET KEY	5	*
SIXTH PRESET KEY	6	#

FIG. 8

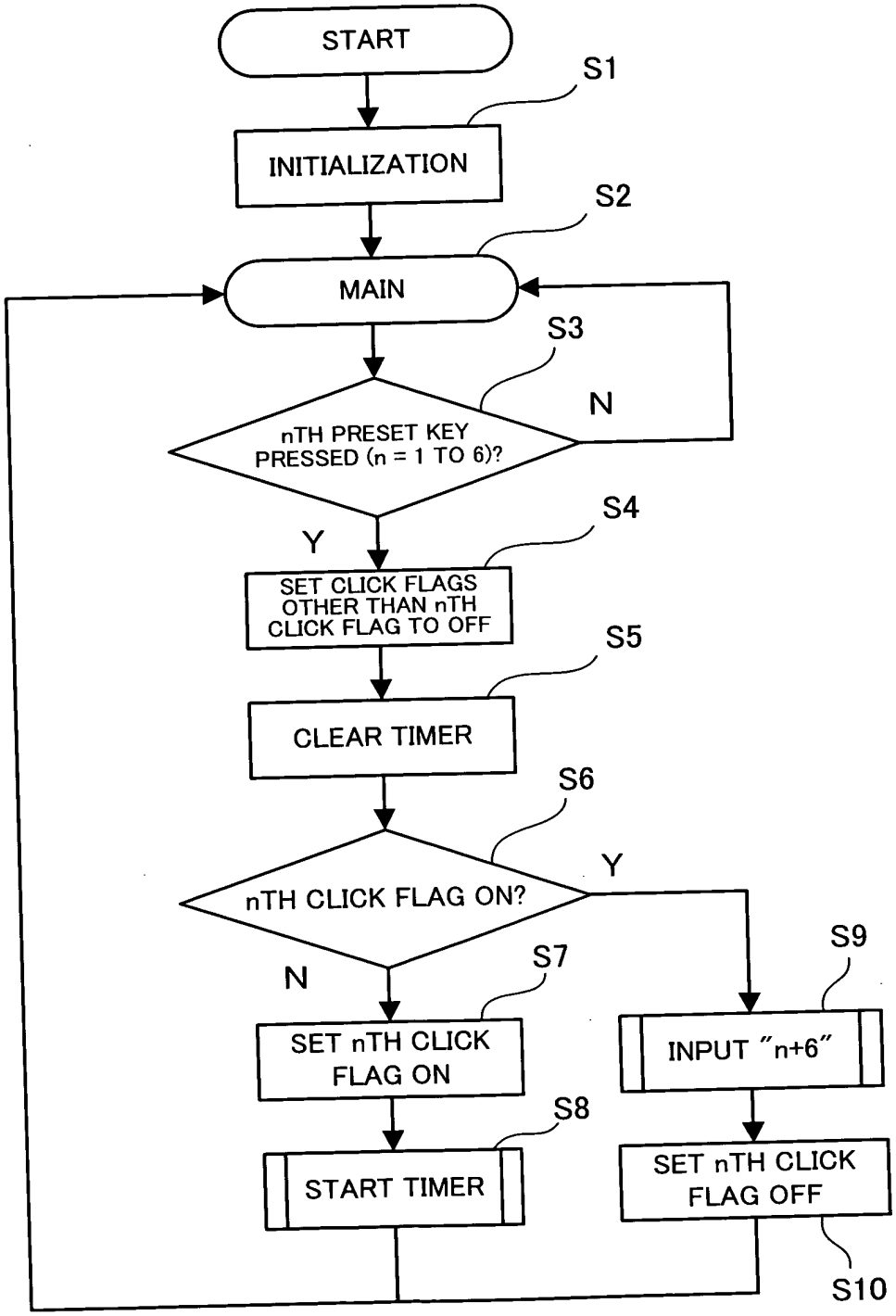

START
S1
INITIALIZATION
S2
MAIN
S3
nTH PRESET KEY PRESSED (n = 1 TO 6)?
N
Y
S4
SET CLICK FLAGS OTHER THAN nTH CLICK FLAG TO OFF
S5
CLEAR TIMER
S6
nTH CLICK FLAG ON?
Y
N
S7
SET nTH CLICK FLAG ON
S8
START TIMER
S9
INPUT "n+6"
SET nTH CLICK FLAG OFF
S10

FIG. 9

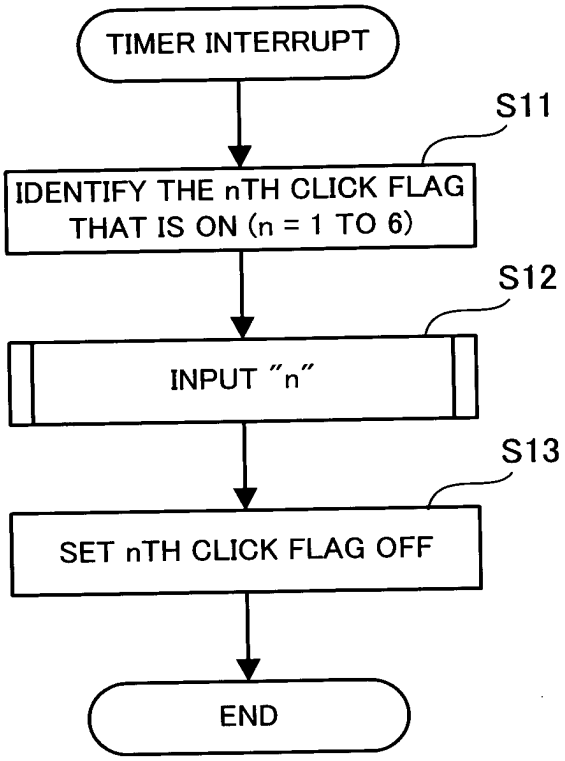

TIMER INTERRUPT
S11
IDENTIFY THE nTH CLICK FLAG THAT IS ON (n = 1 TO 6)
S12
INPUT "n"
S13
SET nTH CLICK FLAG OFF
END

FIG. 10

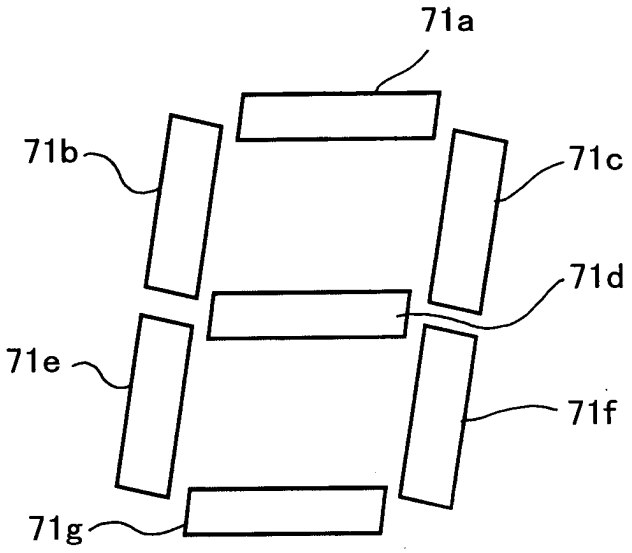


FIG. 11

NUMERAL	FORM IN WHICH NUMERAL IS DISPLAYED	UPPER PORTION	LOWER PORTION
1	1	1	1
2	2	ɔ	c
3	3	ɔ	ɔ
4	4	u	1
5	5	c	ɔ
6	6	c	o
7	7	n	1
8	8	o	o
9	9	o	ɔ
0	0	n	u

FIG. 12

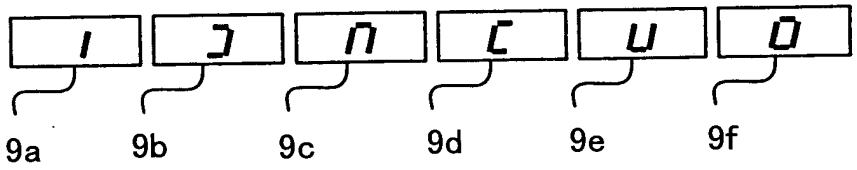


FIG. 13

NUMERAL	UPPER PORTION INPUT	LOWER PORTION INPUT
1	FIRST PRESET KEY	FIRST PRESET KEY
2	SECOND PRESET KEY	FOURTH PRESET KEY
3	SECOND PRESET KEY	SECOND PRESET KEY
4	FIFTH PRESET KEY	FIRST PRESET KEY
5	FOURTH PRESET KEY	SECOND PRESET KEY
6	FOURTH PRESET KEY	SIXTH PRESET KEY
7	THIRD PRESET KEY	FIRST PRESET KEY
8	SIXTH PRESET KEY	SIXTH PRESET KEY
9	SIXTH PRESET KEY	SECOND PRESET KEY
0	THIRD PRESET KEY	FIFTH PRESET KEY

FIG. 14

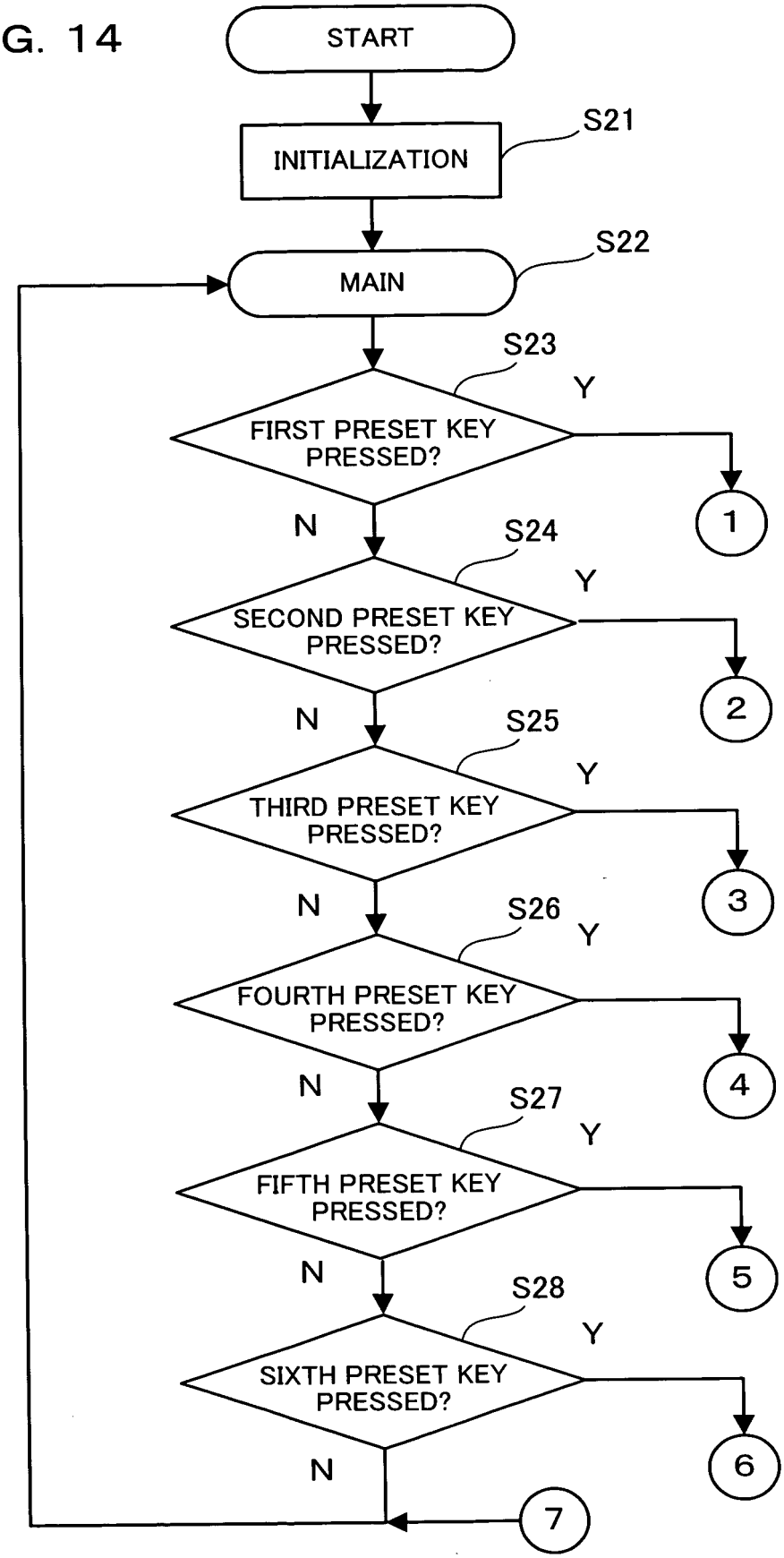

START
INITIALIZATION
S21
MAIN
S22
S23
FIRST PRESET KEY PRESSED?
Y
N
1
S24
SECOND PRESET KEY PRESSED?
Y
N
2
S25
THIRD PRESET KEY PRESSED?
Y
N
3
S26
FOURTH PRESET KEY PRESSED?
Y
N
4
S27
FIFTH PRESET KEY PRESSED?
Y
N
5
S28
SIXTH PRESET KEY PRESSED?
Y
N
6
7

FIG. 15

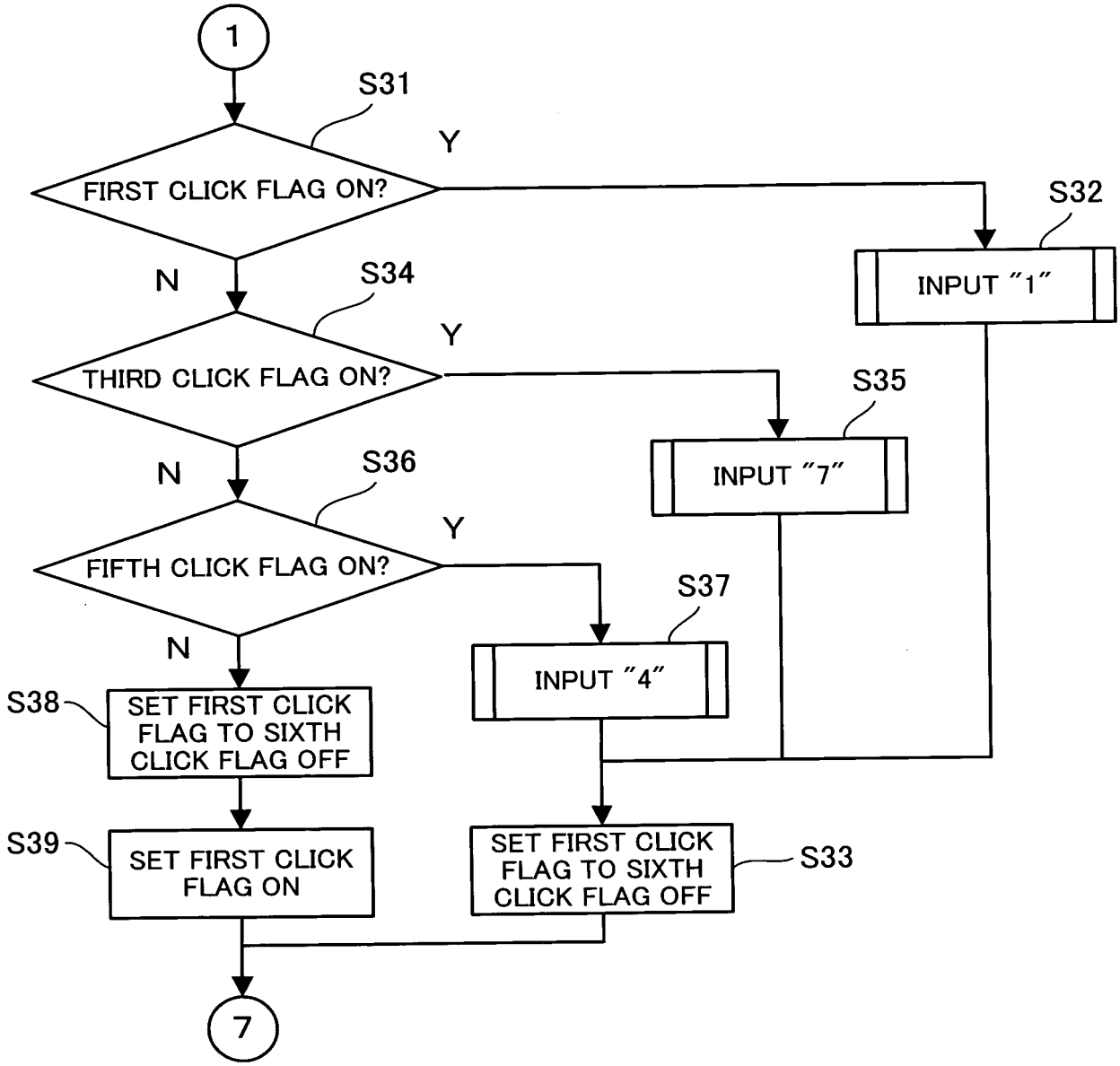

1
S31
FIRST CLICK FLAG ON?
Y
S32
INPUT "1"
N
S34
THIRD CLICK FLAG ON?
Y
S35
INPUT "7"
N
S36
FIFTH CLICK FLAG ON?
Y
S37
INPUT "4"
N
S38
SET FIRST CLICK FLAG TO SIXTH CLICK FLAG OFF
S39
SET FIRST CLICK FLAG ON
SET FIRST CLICK FLAG TO SIXTH CLICK FLAG OFF
S33
7

FIG. 16

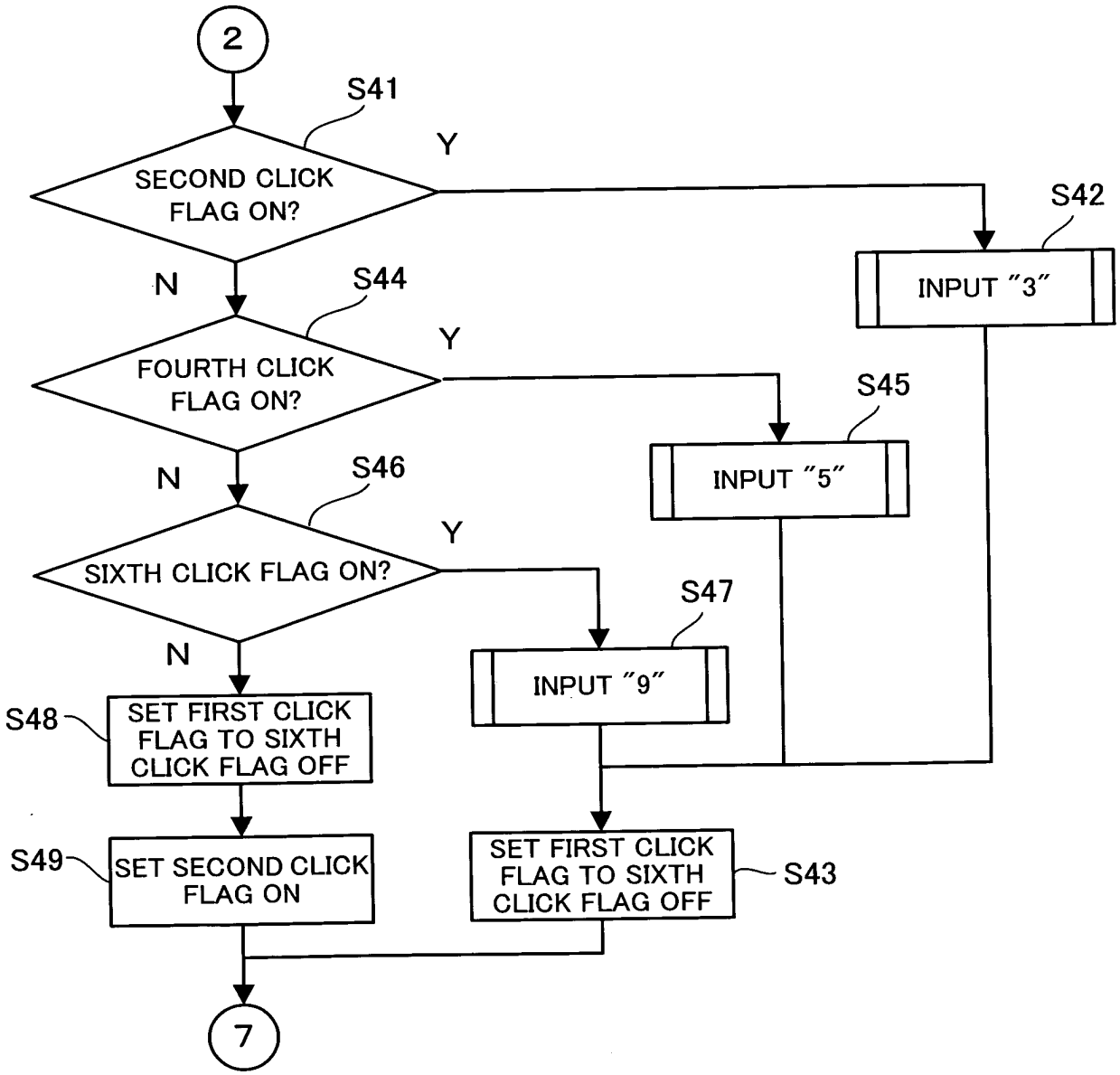

2
S41
SECOND CLICK FLAG ON?
Y
S42
INPUT "3"
N
S44
FOURTH CLICK FLAG ON?
Y
S45
INPUT "5"
N
S46
SIXTH CLICK FLAG ON?
Y
S47
INPUT "9"
N
S48
SET FIRST CLICK FLAG TO SIXTH CLICK FLAG OFF
S49
SET SECOND CLICK FLAG ON
SET FIRST CLICK FLAG TO SIXTH CLICK FLAG OFF
S43
7

FIG. 17

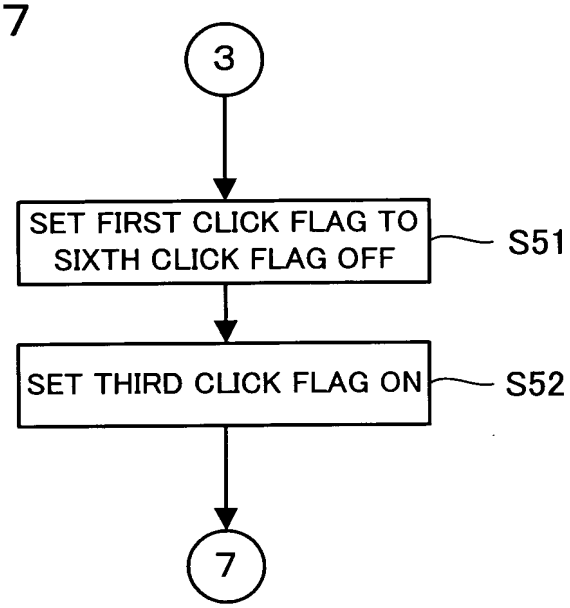

3
SET FIRST CLICK FLAG TO SIXTH CLICK FLAG OFF
S51
SET THIRD CLICK FLAG ON
S52
7

FIG. 18

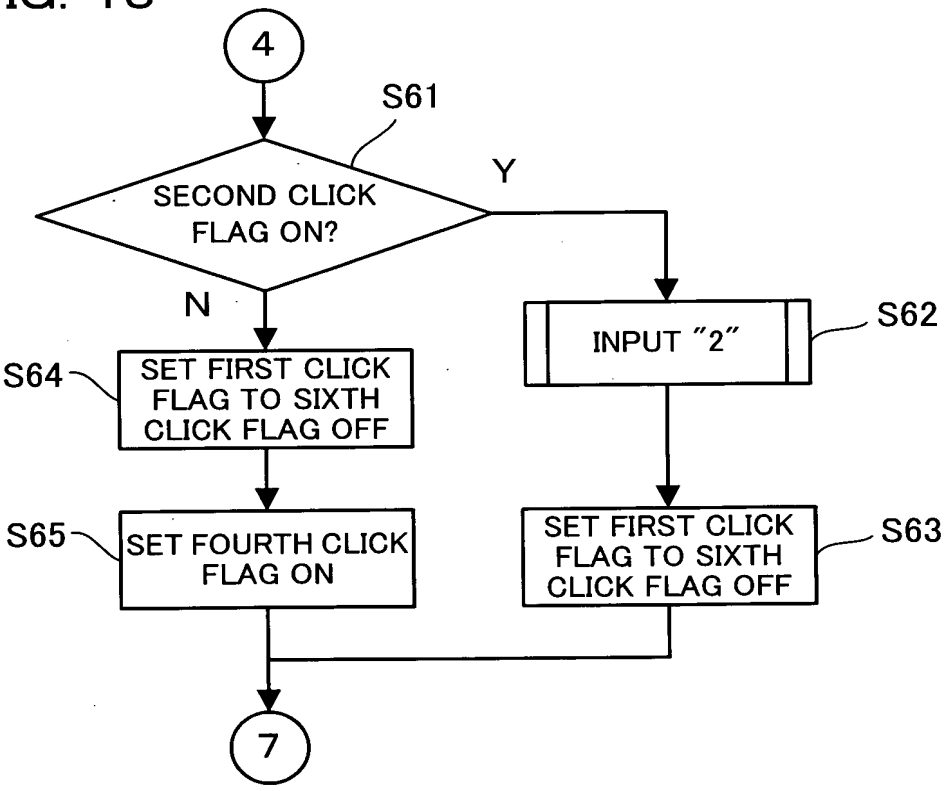

4
S61
SECOND CLICK FLAG ON?
Y
N
INPUT "2"
S62
S64
SET FIRST CLICK FLAG TO SIXTH CLICK FLAG OFF
S65
SET FOURTH CLICK FLAG ON
SET FIRST CLICK FLAG TO SIXTH CLICK FLAG OFF
S63
7

FIG. 19

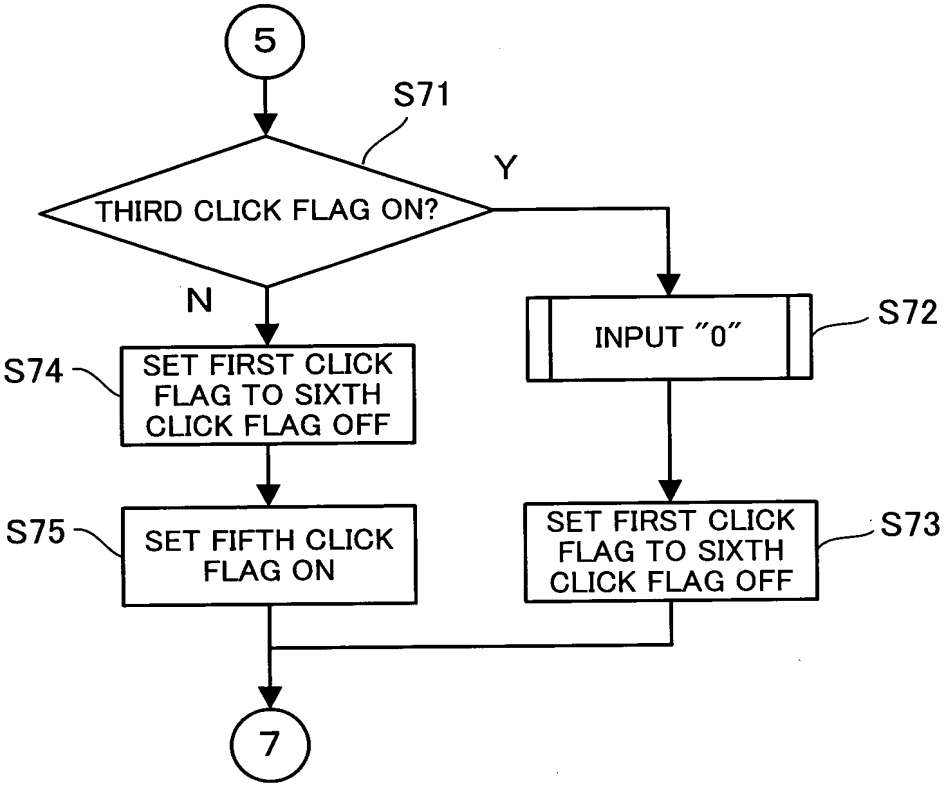
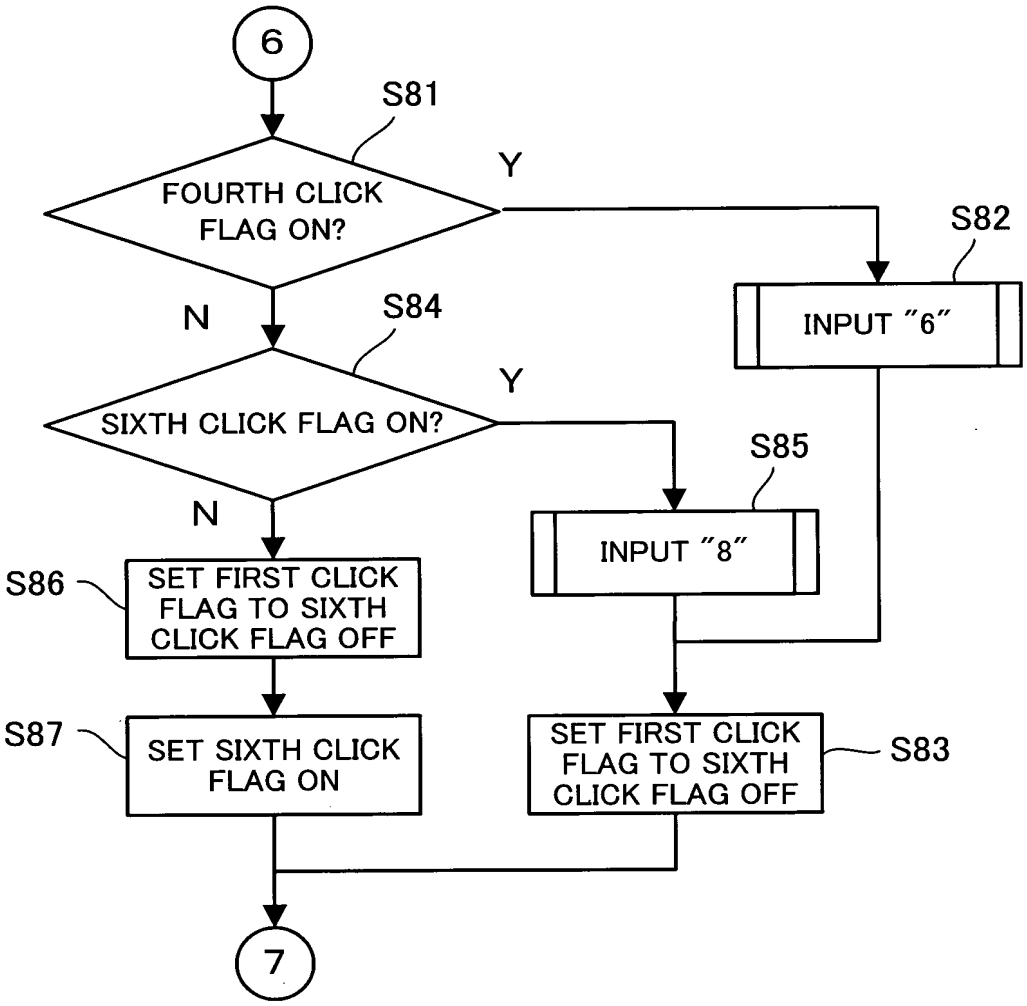

5
S71
THIRD CLICK FLAG ON?
Y
N
INPUT "0"
S72
S74
SET FIRST CLICK FLAG TO SIXTH CLICK FLAG OFF
S75
SET FIFTH CLICK FLAG ON
SET FIRST CLICK FLAG TO SIXTH CLICK FLAG OFF
S73
7

FIG. 20


6
S81
FOURTH CLICK FLAG ON?
Y
S82
INPUT "6"
N
S84
SIXTH CLICK FLAG ON?
Y
S85
INPUT "8"
N
S86
SET FIRST CLICK FLAG TO SIXTH CLICK FLAG OFF
S87
SET SIXTH CLICK FLAG ON
SET FIRST CLICK FLAG TO SIXTH CLICK FLAG OFF
S83
7